

STATEMENT OF NORBERT A. OWENS, DEPUTY ASSOCIATE ADMINISTRATOR FOR AIR TRAFFIC, FEDERAL AVIATION ADMINISTRATION, BEFORE THE HOUSE COMMITTEE ON ENERGY AND COMMERCE, SUBCOMMITTEE ON TELECOMMUNICATIONS AND FINANCE, CONCERNING THE RECENT COMMUNICATIONS NETWORK OUTAGE IN NEW YORK. OCTOBER 1, 1991.

Mr. Chairman and Members of the Subcommittee:

I welcome the opportunity to appear before the Subcommittee to discuss the effects of the recent AT&T telecommunications outage on our air traffic control system, and to provide some background on the direction the FAA is taking in our telecommunication program to ensure the safety and integrity of the National Airspace System. Joining me today is Edward M. Kelly, Deputy Associate Administrator for Airway Facilities.

Telecommunications are a vital link in the FAA's air traffic control system. We must rely heavily on our telecommunications network to relay both voice communications and data from our radars and other navigational aids to and from our air traffic control facilities. Disruptions in these key services have a significant impact on air traffic operations, increasing delays to the traveling public and making the job of delivering safe and efficient air traffic control services more difficult for our workforce.

The FAA's telecommunications network consists of a combination of FAA-owned and leased resources. The FAA currently has over 10,000 communication-related accounts with AT&T, at an annual cost of

approximately \$90 million. These accounts include circuits and equipment and are leased competitively through the Defense Commercial Communications Organization (DECCO). AT&T provides approximately 7,500 circuits to the FAA that carry critical voice and data transmissions, including those used by air traffic controllers to maintain radio contact with aircraft operating within the National Airspace System.

Since our air traffic control system requires highly reliable telecommunications services, the FAA maintains a close relationship with all suppliers, including AT&T. The FAA and AT&T routinely participate in regional and national service improvement meetings which focus on improving the quality of telecommunications services. We are in constant communication with AT&T at many of our organizational levels to identify potential problems and resolve existing difficulties. As recently demonstrated, however, outages can and do occur, and this is a source of continuing concern to us.

The vulnerability of our Nation's airspace system to telecommunications breakdowns is a serious issue for the FAA. Our current efforts to protect our communications systems arose from an incident in 1988, near Princeton, New Jersey. That outage, caused by someone cutting a fiber optic cable, resulted in major disruptions to air traffic control and caused delays.

After that incident, the FAA proceeded to combine various ongoing efforts that were aimed at eliminating single point failures as a

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cause of multiple communications failures through the introduction of a diverse telecommunications capability. The result of this coordinated effort was our Communications Diversity Program and an FAA Order on communications diversity. Our Order establishes criteria for providing telecommunications diversity and identifies and prioritizes specific FAA services for diversity.

In addition, we established Communications Working Groups in all of our nine Regions, and a National Oversight Committee in our Headquarters Office. These groups have the task of developing network protection plans for all major FAA facilities and overseeing the completion of these plans.

One resource that has become available to meet the objectives of our diversity plans is the FAA's Radio Communications Link (RCL). This system is an FAA-owned and operated microwave system for transmitting both voice and data. Because this system relies on wireless transmissions, outages caused by severed wires will not affect this system and it can be relied upon to provide some protection when commercial lines are out. The FAA has begun using the completed segments of the RCL to provide alternate routes to radar and communications facilities. All segments will be available in early 1992, but circuit and route switching capabilities will not be available until 1995. The FAA estimates that eventually over 5000 circuits will populate the RCL.

Another resource that is being developed which will greatly enhance our capability to meet our telecommunications needs is the

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Leased Interfacility National Airspace Communications System (LINCS). Last week, the General Services Administration and FAA signed a Memorandum of Understanding which will permit the FAA to proceed with development of the LINCS system. This system will provide telecommunications specifically designed for air traffic control and will protect our operational communications system from single point failures such as we experienced in New York.

Recently, on Tuesday, September 17, 1991, at approximately 4:35 P.M., a substantial telecommunications failure occurred at an AT&T facility in Manhattan. We understand that AT&T was asked by the local utility company to transfer their operation to backup power due to heavy power demands in the New York area. It appears that backup diesel power was intended to be used; however, a transfer was instead made to battery power, which was intended to be a redundancy to the backup diesel power system.

The transfer to battery power apparently went unnoticed and was caught only when telecommunications circuits started to drop off due to expended battery power. Since charged batteries are required to bring the system back to commercial power, AT&T followed their procedures to shut the system down in order to recharge the batteries in order to effect a transfer to commercial power. Although service was gradually restored, normal service was not available for over 5 hours.

This outage had a major impact on our New York Air Route Traffic Control Center. The New York center lost 147 circuits, or

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approximately 90% of its air-ground frequencies, voice, and data lines to FAA facilities west of New York City. Our Boston Center lost an additional six circuits.

When notified of this incident, the FAA's Air Traffic System Command Center issued "ground stops", which held aircraft that would be departing for the affected area on the ground. Aircraft enroute to New York were routed around the affected area and pilots of aircraft that were within the affected area initiated appropriate lost communications procedures.

We estimate that this disruption to air traffic services resulted in 516 aircraft delays. These delays included 374 departures, 9 arrivals and 14 enroute aircraft. An additional 119 delays occurred at airports where flights were held on the ground due to circumstances relating to the outage. There were also 658 flights that were cancelled because of the outage.

In closing, Mr. Chairman, I would like to reiterate the importance of a reliable and efficient telecommunications system to the safe and efficient operation of our air traffic control system. We are committed to an aggressive restructuring and modernization of the existing system. Progress has been made, but much more needs to be done. You have my assurance that we recognize the importance of pressing forward with this program, and that it will remain a high priority with the FAA.

That completes my prepared statement. We would be pleased to respond to any questions you may have at this time.